

Longley Meadows Fish Habitat Enhancement Project Heritage Resources Specialist Report

Prepared By:
Reed McDonald
Snake River Area Office Archaeologist
Bureau of Reclamation
June 20, 2019

Heritage Resources

Introduction

This section discusses the existing conditions and effects of implementation of the Longley Meadows project on cultural resources, also known as heritage resources, which are integral facets of the human environment. The term “cultural resources” encompasses a variety of resource types, including archaeological, historic, ethnographic and traditional sites or places. These sites or places are non-renewable vestiges of our Nation’s heritage, highly valued by Tribes and the public as irreplaceable, many of which are worthy of protection and preservation. Related cultural resource reports and analyses can be found in the Longley Meadows Analysis File.

Affected Environment

Pre-Contact History

The Longley Meadows area of potential effect (APE) for cultural resources lies within the Plateau culture area, which extends from the Cascades to the Rockies, and from the Columbia River into southern Canada (Ames et al. 1998). Most of the archaeological work in the Columbia Plateau has been conducted along the Columbia and Snake Rivers. This section discusses the broad culture history in the Southern Plateau.

Much variability exists in the Plateau culture area due to the mountainous terrain and various climatic zones within it. Plateau peoples adapted to these differing ecoregions largely by practicing transhumance, whereby groups followed resource seasonal availability. There are eight key features of the Plateau cultural area defined by Walker (1998): riverine settlement patterns; reliance on diverse subsistence sources (e.g., anadromous fish, game, and roots); a complex fishing technology; mutual cross-utilization of subsistence resources across groups; extension of kinship ties through intergroup marriage; extension of trade links through partnerships and regional gatherings; limited political integration at the village and band levels; and relatively uniform mythology, art styles, and religious beliefs.

The antiquity of human occupation in the Plateau culture area extends as far back as 11,500 years before present (B.P.), when Clovis-type fluted spear points were in use. The early inhabitants of the region were called Paleo-Indians and were highly mobile large game hunters.

The Early Archaic period (11,000–7,000 years B.P.) is characterized by small groups of mobile hunter-gatherers who practiced a broad-spectrum subsistence economy (Aikens 1993; Ames et al. 1998). Artifacts from this period include stone and bone projectile points, cobble tools, bifacial knives, hammerstones, needles, awls, antler wedges, beads, and ochre, among others. Chipped stone projectile points vary across the region but typically include shouldered stemmed, indented bases, and lanceolate points prior to 9,000 years B.P. After 9,000 years B.P., stone projectile points tended to all be laurel-leaf shaped until 7,800 years B.P., when side-notched points were introduced to the toolkit (Ames et al. 1998). People kept a diverse diet that included elk, bison (*Bison bison*), deer (*Odocoileus* spp.), pronghorn (*Antilocapra americana*), a variety of lagomorphs, seals, birds, and fish (Ames et al. 1998).

The Middle Archaic period (7,000–5,000 years B.P.) is defined by large side-notched, corner-notched, and laurel leaf-shaped stone projectile points; bifacial knives; milling stones and pestles; bone and antler tools; and semi-subterranean pit houses (Ames et al. 1998). People lived in small, mobile groups of hunter-gatherers with low dependence on root and seed processing. The population in the region appears to have declined during the Middle Archaic, which may be the result of environmental changes or other unknown causes (Ames et al. 1998). The Middle Archaic period coincides with the Altithermal period, during which the region became warmer and drier.

During the Late Archaic period (5,000–150 years B.P.), people began to settle down in pit houses, tule mat-covered long houses, and lodges, and they developed a heavy reliance on fishing, the storage of salmon, and the harvesting of camas (Ames et al. 1998). They began practicing transhumance, where they would spend winters in villages and summers in temporary camps. Artifacts dating to this period typically include small base-notched, corner-notched, triangular, and expanding stem projectile points; milling stones; decorated pestles; net weights; bone and antler tools; cordage and matting; basketry; bows and arrows; and composite harpoons, among other fishing implements (Ames et al. 1998). Sculpted stone pieces appear ca. 3,000 years B.P., as do large cemeteries. Euro-American trade goods began appearing during the protohistoric end of the Late Archaic period. The horse was introduced around 1730 A.D., which increased mobility and transport capabilities, and subsequently strengthened existing trade networks and broadened the range of trade throughout the Plateau (Haines 1938; Schalk 1980). By the time of early Euro-American contact, bison began to replace elk as the prime food source (Harvey and Biechler 2008:10).

The Late Archaic period coincides with the Medithermal period, during which the region experienced cooler conditions, similar to the environment today. The ethnographic record is likely a continuation of the lifeways and subsistence strategies that were in place by at least 3,000 years B.P. (Fagan 1974). These strategies began as a response to the Medithermal climatic change and included economic diversification and increase in root and seed processing (Fagan 1974).

Specific to the project area, archaeological evidence exists that supports the presence of pre-contact peoples, most likely for subsistence and resource procurement. The Grande Ronde River and tributary streams could support significant runs of salmon and steelhead. According to the Watershed Professional Network, LLC (2004), the Grande Ronde River constitutes “key habitat” for spring Chinook and steelhead. Beginning in the early spring, fish runs last into August. As for big game species, faunal assemblages from archaeological sites in northeastern Oregon tend to be dominated by deer and bighorn sheep. These animals would have been available during the pre-contact period in the foothills surrounding the Grande Ronde valley in which this project area is located.

Root crops would have also been plentiful in the area. Camas (*Camassia* spp.) and cous (*Lomatium* spp.) can still be found in the valley and foothills beyond. Evidence of camas processing was recovered from the Marsh Meadows Site (McPherson et al. 1981). High quality basalt and andesite sources are also located throughout the valley. Evidence of quarrying has been found relatively nearby at both the Marsh Meadow Site and the Stockhoff Basalt Quarry (McPherson et al. 1981; Womack 1977) along the valley margins.

Post-Contact History

The APE lies within the traditional territory of Sahaptin speakers, including the Cayuse, Umatilla, and Walla Walla Tribes (Walker 1998) and is located on lands that were ceded by the three tribes to the U.S. government in the Treaty of 1855 (Dickson 2010a). Ethnographic maps shown by Walker (1998) depict the Cayuse as primarily using the APE, though the region was also important to the Umatilla and Walla Walla Tribes, as well as the Nez Perce Tribe (Harvey and Biechler 2008:11).

Cayuse Indians lived in several local bands, which may have numbered between seven and nine (Dickson 2010a). They would spend their winters along the northern foothills of the Blue Mountains and would move through the Blue Mountains into the Grande Ronde and Wallowa Valleys in summer and fall (Suphan 1974). Winter villages were permanent and were the center of social, economic, and political activities (Chalfant 1974). Spring, summer, and fall camps were temporary and used while engaged in resource procurement. Division of labor was based on gender, where women would typically dig roots (e.g., camas and bitterroot) and pick berries (e.g., serviceberry and huckleberry) and men would typically

hunt game and fish. Surpluses of food were dried and stored in the winter villages for consumption during winter months, though some fresh game and fish was also taken during winter (Dickson 2010a). The introduction of the horse brought with it an increased importance of buffalo. Tribes also traveled farther distances and interacted with distant groups, such as the Flathead (Dickson 2010a).

Several ethnographically named places are near the APE, including seasonal camps located along the Upper Grande Ronde River and its major tributaries. Cardno is not aware of any known ethnographically named places in the APE; however, there are several in the general vicinity (Hunn et al. 2015 [from Sparks et al. 2018]; Shawley 1977), as listed below.

- > Timʔúyitimʔuy Neenme, located at the confluence of Rock Creek and the Upper Grande Ronde River (near present-day Hilgard Junction; RM 169.5), was a seasonal camp used by the Cayuse and the Nez Perce for fishing—including salmon, trout, and whitefish—and the gathering of medicinal plants and other plant materials (Hunn et al. 2015:168–169).
- > Kiýewnuníme, located at the confluence of Five Points Creek and the Upper Grande Ronde River (near present-day Hilgard; RM 169.25), was a seasonal camp used by the Cayuse and the Nez Perce for fishing—including salmon, trout, and whitefish—and the gathering of medicinal plants and other plant materials (Hunn et al. 2015:168–169).
- > Titlúpe Qapqápa, located near the confluence of Beaver Creek and the Upper Grande Ronde River (RM 181.75), was a seasonal camp for fishing used by both the Umatilla and Cayuse (Hunn et al. 2015:166–167).
- > Teemišquylišpe, located near Titlúpe Qapqápa (RM 181.75), was a seasonal camp used by the Nez Perce and Cayuse for hunting (Hunn et al. 2015:166–167).

Additionally, a previously recorded ethnographic trail, ʔIcqÍtinma, may have extended near portions of the APE. Hunn et al. (2015) state that the trail existed south of the Upper Grande Ronde River Valley, but the exact location is not definitive. The trail led to a place known for camas gathering and horse grazing, and was used by the Cayuse and Nez Perce (Hunn et al. 2015:166–167).

History

While not venturing as far south as the Upper Grande Ronde River, Lewis and Clark traveled through the Plateau along the Snake and Columbia Rivers in 1805, and shortly thereafter, they were followed by fur trappers in 1807 (Harvey and Biechler 2008). These early trappers worked for the North West Company of Canada and John Jacob Astor's Pacific Fur Company. The Pacific Fur Company reached the Upper Grande Ronde River Valley at the end of 1811 and camped near La Grande in January 1812 (Parsons and Sciach 1902). The Hudson's Bay Company entered the region in 1821, and by 1830 the company had nearly decimated the beaver population (Reclamation 2014).

Oregon Trail

The expansion westward began with the first group of emigrants who made the journey from Missouri over the Rocky Mountains via a wagon and arrived in Oregon Country along what would later be known as the Oregon Trail in 1836. This group included Narcissa and Marcus Whitman, who founded a mission near present-day Walla Walla (Washington) that same year. Mass migration of settlers began around 1843, which marked the advent of the Oregon Trail. Prior to that time, the Oregon Trail had been a network of Indian trails that were also used by fur traders and other emigrants (National Historic Oregon Trail Interpretive Center n.d.).

Creation of Reservations

The Whitman Mission was a stopping point for supplies as emigrants passed through the region on the Oregon Trail. As missionaries, the Whitmans were unsuccessful in converting the Cayuse to Christianity, and after bouts of scarlet fever and measles that had been introduced by emigrants, and for which the Cayuse held the Whitmans responsible, some Cayuse members killed the Whitman's and 11 others at the mission on November 29, 1847 (Meinig 1968).

What followed was a series of conflicts between the local Native Americans and white settlers in eastern Oregon and Washington, including the Cayuse War of 1848. The Provisional Legislature of Oregon and Governor George Abernethy authorized raising companies of volunteers to go to war against the Cayuse Tribe. A 50-person unit of volunteers, called the Oregon Rifles, was raised immediately and dispatched to The Dalles under the command of Henry A.G. Lee to protect the Wascopam Mission at The Dalles and prevent any hostile forces from reaching the Willamette Valley (Beckham 2006). In addition, the governor appointed a peace commission, consisting of Joel Palmer, Henry Lee, and Robert Newell.

Upon arriving at The Dalles, the Oregon Rifles drove off a band of Indians, but not before the Indians had stolen 300 head of cattle (Beckham 2006; U.S. War Department 1889). The Oregon Rifles proceeded to build Fort Lee, and in January 1848, a force of over 500 militiamen led by Colonel Cornelius Gilliam marched against the Cayuse and other tribes of central Oregon. These troops arrived at Fort Lee in February 1848, and continued east toward the Whitman Mission, but not before engaging in battle at Sand Hollows. After reaching the mission, Colonel Gilliam set out to return to The Dalles with a small force to supply that settlement, before continuing to Oregon City to report to the governor.

Some Cayuse initially refused to make peace and raided isolated settlements while others, considered friendly to the settlers, tried to work with the peace commission (Beckham 2006; U.S. War Department 1889). The militia forces provoked both friendly and hostile Indians. Many Cayuse resisted; however, unable to match the militia's firepower, they were driven into hiding in the Blue Mountains. While no battles were fought in or near the APE, the Oregon Rifles escorted J.L. Meek and his party from Whitman Mission to the summit of the Blue Mountains near Mt. Nebo (north of Hilgard) as the party made their way to Washington D.C. with dispatches from Governor Abernathy to the U.S. president (United States War Department 1889). The Cayuse War of 1848 culminated with the hanging of five Cayuse men, although sporadic bloodshed continued until 1855 (Ruby and Brown 1986).

The U.S. Congress ended slavery in the Oregon Territory and passed a bill on August 13, 1848, that established a territorial government in Oregon (Lyman 1918). In 1853, Joel Palmer and Isaac Stevens were selected to represent Indian policies for the Northwest. They met with representatives of the Cayuse, Umatilla, Walla Walla, and Nez Perce Tribes, and signed three treaties during the Walla Walla Council, which created several reservations. The CTUIR was one such reservation created in 1855. Initially, only two reservations were proposed, the Nez Perce and Yakama Reservations (Dickson 2010a). After the Cayuse, Umatilla, and Walla Walla voiced their disappointment with having to move away from their traditional lands, however, Palmer outlined the CTUIR, which would encompass 510,000 acres. The tribes ceded 6.4 million acres to the U.S. government and reserved rights for fishing, hunting, gathering foods and medicines, and pasturing livestock (Dickson 2010a). The treaty was signed on June 9, 1855 and was ratified by Congress on March 8, 1859.

Regional Roads

Indian Service Road, as dictated by the Treaty of 1855, was built in 1862 between Pilot Rock, Starkey, and La Grande to move emigrant traffic away from the reservation (Dickson 2010a). However, maintenance was not provided and the road deteriorated beyond use. Dealy Road, built in 1864, was a toll road that passed near Starkey, where it crossed the Upper Grande Ronde River and proceeded along the

east side of Beaver Creek through to Wolf Creek near North Powder and into Baker Valley, terminating at the “Slough House,” an emigrant stopping place 6 or 7 mi (10 or 11.5 km) north of Baker City (Reavis 2018). While cattle continued to be hauled on Dealy Road, the long, winding trek was avoided by emigrants, who continued to travel through the reservation (Dickson 2010a).

The history of roads along the Upper Grande Ronde River Valley is scant, although court records indicate that there was interest in the establishment of roads connecting various parts of Union County (Reavis 2018). The 1874 cadastral map of Township 3 South, Range 36 East shows a road paralleling the Upper Grande Ronde River as it passes through the APE (Simpson 1874). By 1935, Highway No. 34, a graveled road, was shown, and current Highway 244 follows this alignment (Metsker 1935).

Creation of Union County

Union County was originally part of Wasco County, and the northern end of the Upper Grande Ronde River Valley was the first part to be settled by Euro-Americans. In 1862, due to population growth in eastern Oregon, the state legislature created Umatilla and Baker Counties from the original Wasco County. Further settlement in Baker County led to the creation of Union County in 1864 (Western Historical Publishing Company 1902). The county seat oscillated between La Grande and Union based on geography and economic and population growth. La Grande was the original county seat; however, Union usurped La Grande and became the county seat in 1874. La Grande won back the seat in 1905 (Oregon State Archives n.d.; Western Historical Publishing Company 1902).

The 1860s saw many changes to the region. Benjamin Brown was the first Euro-American to settle in the Upper Grande Ronde River Valley in 1861. He built a house on the west side of the valley in 1862 and was plowing soil by April of that year (Dickson 2010a). Miners began traveling through the area ca. 1862–1864, which spurred the development of little towns and thousands of mining claims in the region. Gold was discovered in Tanner Gulch, located 35 mi (58.3 km) south of the APE, in 1862 (Reclamation 2014). By 1872, placer mining operations were active in the headwaters of the Upper Grande Ronde River, upstream of Camp Carson near Union (Reclamation 2014).

Settlements in the Upper Grande Ronde River Valley sprung up to provide services for the miners, including farmed goods (Dickson 2010a). A sawmill, dam, and water-powered grist mill were built at Oro Dell in 1862, which resulted in the first dam to obstruct upstream passage of salmon to the Upper Grande Ronde River (Reclamation 2014). By 1900, there were approximately 50 sawmills in the valley (Reclamation 2014). Cattle and sheep became an integral part of the economy in the region in 1862 when Fred Nodine brought back 100 head of cattle from Walla Walla. The winter of 1880–1881 decimated the livestock populations, which had overgrazed on the native bunchgrasses and left little to feed on in the winter (Western Historical Publishing Company 1902). Valleys were soon cleared and cultivated to provide livestock feed and to serve other agrarian pursuits.

Town of Hilgard (1883)

By 1843, emigrants traveling on the Oregon Trail stopped at the modern-day community of Hilgard near Hilgard Junction, located 3 mi (5 km) and 2.5 mi (4.2 km) northeast of the APE, respectively. Hilgard was situated on the main route of the trail and offered a convenient place to camp and graze animals before the emigrants continued their arduous travels into the Blue Mountains toward Emigrant Springs and Meacham (Beckham 1991).

Hilgard was named after both Eugene W. Hilgard, Dean of the College of Agriculture at the University of California, and his cousin, Henry Villard (birth name Ferdinand Heinrich Gustav Hilgard), financier and early president of the Oregon Railroad and Navigation Company (McAthur 2003). When Villard built the Oregon Railroad and Navigation Company railroad, he employed his cousin Eugene to conduct an

agricultural survey of the area. In 1883, a post office named “Dan” was established; however, its name was changed to “Hilgard” later that year (Forte 2018). The early 1880s saw a thriving Hilgard, serving stockmen, loggers, and miners (Reclamation 2014). In the early twentieth century, the Hilgard vicinity boasted several sawmills, including one operated by the Mount Emily Lumber Company, until the 1920s. The post office closed in 1943. Today, Hilgard supports a handful of residences.

Wallowa-Whitman Forest

The majority of the APE, approximately 111 acres, lies within Wallowa-Whitman National Forest property. The Wallowa-Whitman National Forest is a combination of the Wallowa National Forest, created in 1908 and containing seven forest reserves, and the Whitman National Forest, created in 1908 and containing three forest reserves. These reserves, located in Oregon, Washington, and Idaho, have been managed together since 1954. In total, the Wallowa-Whitman Forest covers 2.3 million acres (National Forest Foundation 2017).

The establishment of the national forests in eastern Oregon played an important role in the local economy during the early twentieth century. During this time, roads, campgrounds, and trails were constructed to support recreation uses and resource extraction activities. Mining and livestock ranching were prominent activities in and surrounding the boundaries of the Wallowa-Whitman National Forest during the late nineteenth and early twentieth centuries. The Blue Mountains were part of the “gold belt,” a 50- to 100-mi-wide (83- to 167-km-wide) area in Baker and Grant Counties. There are 561 claims (25 active/536 closed) in and near Hilgard (The Diggings 2018).

Accompanying the emigrants along the Oregon Trail were their cattle. Hilgard was a popular area to stop and graze cattle before moving westward. With the introduction of the railroad to the area in the late 1860s, including the wye located at Hilgard, cattle were herded through the Upper Grande Ronde River Valley en route to railheads and to the markets beyond. Cattle, and later sheep, grazing diminished the available grass resources in the uplands overlooking the valley, and overgrazing was a major issue by the early twentieth century (Skovlin 1991). The establishment of national forest reserves introduced administrative controls that regulated grazing within the reserves.

Timber Industry and Mount Emily Railroad

The transcontinental railroad was built in 1869 and passed La Grande following Meacham Creek (Dickson 2010a). The Oregon Railroad and Navigation Company built a spur line from La Grande to Elgin in 1890 (Harvey and Biechler 2008; Reclamation 2014). Sawmills located around the valley and the forest produced railroad ties, fence rails, and lumber. The Grande Ronde Lumber Company acquired land in 1890 and began constructing splash dams on Beaver, Meadow, and Fly Creeks, as well as at Dark Canyon and Vey Meadow (Reclamation 2014). Splash dams were used to store water for use in annual log runs down the Upper Grande Ronde River to Perry, located approximately 4.5 mi (7.5 km) east of Hilgard.

The timber industry continued to grow in the Grande Ronde Valley through the early 1900s. The Mount Emily Timber Company, later known as the Mount Emily Lumber Company, was founded by the Kinzel family and August J. Strange in 1912, although it would be another 12 years before the Wisconsin-based parent company would begin operations in Oregon.

In 1924, the Mount Emily Lumber Company began operation of their La Grande sawmill. The sawmill was equipped with a three-band system and drying facility, along with a complete remanufacturing and finishing plant, and quickly became the technological leader in timber harvesting, transportation, and milling operations (Turner 2005 in Sparks et al. 2018). The company owned 110,000 acres of timber and held long-term rights to timber on an additional 20,000 acres. Logs were transported down from the

Wallowa-Whitman National Forest via a railroad from the uplands, following Five Point Creek, past Hilgard, and to La Grande (Deumling 1972:68).

The Mount Emily Lumber Company purchased the Grande Ronde Lumber Company railroad in 1925. The mainline railroad route extended approximately 30 mi (50 km) to the southwest of La Grande, and they continued to expand the logging railroad farther west (Trainweb 2016). This included a spur line up Whiskey Creek, whose confluence with the Upper Grande Ronde River is less than 1 mi (1.6 km) northeast of the APE, and railroad from Hilgard along the Upper Grande Ronde River, which reached the headwaters (Powell 2008).

Construction of spur lines was completed by immigrant laborers originating from Greece, China, and Japan (Gray-Jeffries 2016). To house workers, the Mount Emily Lumber Company established camps, and the primary camp, known as the Meadow Creek Camp (later known as the Mount Emily Camp), was located along the Hilgard route. A company town formed in the area. The Mount Emily Camp provided housing for men with families, dormitories for single men, a commissary, dining hall, elementary school, and some recreational facilities (Turner 2005 in Dickson 2010a). The Mount Emily Camp housed 50 families with more than 150 people and remained at the Meadow Creek location until 1955 (Camp Elkanah 2018). The Meadow Creek Camp was located at present-day Camp Elkanah, approximately 12 mi (20 km) southwest of the APE.

Temporary camps were also located along the spur lines. A small lumber camp was located along the Upper Grande Ronde River approximately 6 mi (10 km) southwest of Hilgard and approximately 1 mi (1.6 km) west/southwest of the APE. The camp was founded in the late 1920s and housed a crew of Japanese-American laborers who conducted rail track maintenance and removal. The camp was situated alongside the lumber company's spur rail, and provided two small buildings for the laborers and a house for the foreman (Gray-Jeffries 2016:10–11).

The Mount Emily Lumber Company began transitioning from rail logging to truck logging in the 1930s for economic and practical purposes. While the railroad mainline remained in use, Mount Emily Lumber Company began building truck roads out to the harvest sites rather than rail spurs (Trainweb 2016). The last railroad built for the Mount Emily Lumber Company was constructed in 1936. During 1937, it was reported that the Mount Emily Lumber Company employed more than 30 mi (50 km) of railroad track and 75 mi (125 km) of truck roads. An additional 42 mi (70 km) of rail line in northern Union County was added when the company bought the Oregon White Pine Lumber Company in 1938 (Deumlin 1972). Another 6 mi (10 km) was added in 1944, extending the railroad out of the Upper Grande Ronde River watershed, after which point the railroad remained unchanged (Trainweb 2016). The Mount Emily Lumber Company was the last logging company in the Upper Grande Ronde River Valley to rely on rail transport (Deumling 1972). The Valsetz Lumber Company bought the Mount Emily Lumber Company in 1955, and ceased to use the railroad, choosing instead to employ truck transport only. Boise Cascade Company bought the Valsetz Lumber Company in 1960.

The Mount Emily Railroad grade extends through significant portions of the APE on both private land and USFS property. Aerial photographs of the APE reveal that some portions of the railroad grade have been destroyed due to road infrastructure and private development. Along the southeastern section of the APE, Highway 244 subsumed 0.3 mi (0.5 km) of the Mount Emily Railroad grade (Google Earth 2018). A 458-ft (140-m) segment of the grade was destroyed in the construction of the La Grande Rifle and Gun Club's firing range north of Highway 244.

La Grande Rifle Range (1925–present)

The La Grande Rifle Range is a historic-age military rifle range located in Section 16 of Township 3 South, Range 36 East and approximately 1.5 mi (2.5 km) west of the APE, although the range boundary is much closer. This property was recorded by ICF as Site BT5-Site-001 (Sparks et al. 2018). The La Grande Rifle Range was used by the Oregon Army National Guard from approximately 1925 through 1965 (Ahn 2012), with sporadic use continuing until 1985. The rifle range, also known as the Starr Range, was used for military munitions training activities, mostly small arms training. The firing range consists of an unfenced, open area with a northerly firing direction of up to 600 yards across the Upper Grande Ronde River into an existing earthen target berm and a hillside impact area just beyond the berm. Several firing range infrastructure features are still extant and include a large, constructed, soil target berm that is partially supported by an 80-ft-long (24-m-long) concrete wall with metal and wooden target raising mechanisms, a concrete foundation, and scattered debris from a storage structure (Sparks et al. 2018).

La Grande Rifle and Gun Club

The APE also contains portions of the La Grande Rifle and Gun Club, which is a pistol and rifle range located in Section 11 of Township 3 South, Range 36 East. The gun club consists of two firing ranges that are located north and south of Highway 244. The rifle range located north of Highway 244 is within the APE. There are 11 structures on the La Grande Rifle and Gun Club property; three structures, listed as multi-purpose sheds, were constructed in 1950 and the remaining eight structures, listed as hay cover (n=4), multi-purpose shed (n=3), general purpose shed (n=1), were constructed between 1996 and 2010 (Union County Tax Assessor 2018: Property 4879). The rifle range consists of a fenced open area, with a northerly and northeasterly firing range. The firing targets are placed in front of two earthen berms, measuring approximately 51 ft (15.5 m) and 160 ft (49 m) wide, that are located south of the Upper Grande Ronde River. A review of aerial photographs of this section of the gun club reveals that a portion of the Mount Emily Railroad grade was destroyed during the construction of the pistol firing range (Google Earth 2018). The rifle firing range is located south of Highway 244 and was constructed in the late 1980s (Roberts 2018), which is located outside of the APE.

Effects Analysis

The Longley Meadows Project heritage resources analysis area encompasses all of the approximately 139-acre project area APE. The APE, following Region 6 guidance and 36 CFR 800.16(d), for the Longley Meadows project area consists of a segment of the Grande Ronde River and adjacent federal, State, and private lands.

Identification of Heritage Resources

The methodology for identifying heritage resources in the APE was established in an Inventory Plan prior to commencement of the work. The Inventory Plan was agreed to by SHPO and CTUIR. A review of existing data related to previously identified cultural resources and the investigations that focused on cultural resource discovery and evaluation was undertaken. Surveys were conducted during 2017 and 2018.

The measure of significance of the heritage resources follows the National Historic Preservation Act (NHPA) regulations at 36 CFR § 800.4 through the National Park Service's National Register Bulletin 15, "How to Apply the National Register Criteria for Evaluation." These criteria are standards applied in evaluating the wide range of properties that may be significant in local, state, and national history, and clarifies whether a particular property is eligible for the National Register of Historic Places. Properties that are qualified are termed "historic properties" within NHPA (and utilized here). Agencies are then obligated to take into account the effects of their project activities on those significant heritage resources,

and must mitigate effects that are adverse. Evaluation of the sites within the APE are undertaken by qualified cultural resource staff of project proponent Bonneville Power Administration (BPA) as part of the Section 106 consultation effort, as outlined in the Statement of Principles agreed to by all project proponents at the beginning of this project.

Pedestrian surveys followed Oregon SHPO fieldwork standards and Wallowa-Whitman National Forest survey guidelines within the APE. Discovered artifacts on the surface were documented, photographed and located with a global positioning system (GPS). In addition, shovel test survey was conducted along the riverine setting of the APE where ground disturbance would be widespread. Shovel test survey excavation methods followed the recommended state standards described in the Guidelines for Conducting Field Archaeology in Oregon (2016), developed by the Oregon SHPO.

A total of 21 archaeological resources were identified within the APE. Of these, nine resources were previously recorded including eight sites (Table 34), one potential site, and one isolate. However, four sites were recently updated by a previous survey for a different project (Bird Track Springs Fish Habitat Improvement Project) and as such, were not revisited as part of this investigation per the request of the USFS. Five previously recorded sites and one potential site were revisited. In addition, four new sites (LM-1, LM-2, LM-3, and LM-5) and seven isolated finds (IF-1, IF-2, IF-3, IF-4, IF-5, IF-6, and IF-7) were discovered during this survey effort.

Surface visibility varied across the APE, depending on vegetation type and density, and erosion, ranging between 5 and 100 percent. Ground cover primarily consisted of various grasses, hawthorn (*Rosaceae* spp.), autumnal leaves, downed trees, and boulders. In specific locations along the right bank (nearest to the Highway 244), the surface was obscured due to marsh vegetation and standing water. An approximate 32.9 acres of the APE were inaccessible due to the Grand Ronde River, steep slopes, and dense vegetation. A total of 922 shovel probes were excavated within the APE and privately-owned portion of the 50-m buffer.

During the survey on the privately owned property, one historic site was revisited and updated. Two pre-contact sites and one pre-contact isolated find were newly recorded (Table 1). The survey on the private property included a 50-m (164-ft) buffer on the south side of Highway 244 that was subsequently removed from the project by Reclamation. However, one newly recorded site, LM-6, was identified in this buffer portion during survey. LM-6 appears to be an extension of a previously recorded site, whose site boundaries were outside both the APE and 50-m buffer. During site mapping, it was verified that the previously recorded site is within 100 ft (30 m) of and on the same landform as LM-6 and contains similar cultural materials, and subsequently, it is recommended the sites be considered a single resource.

During the survey on USFS-owned property, six previously recorded sites, one potential site (e.g., tickler), and one previously recorded isolated find were revisited and updated. One previously recorded site could not be relocated, likely due to use of the area for livestock. Newly recorded archaeological resources within USFS-owned property include two historic sites (LM-1 and LM-3), one multi-component site (LM-2), and one pre-contact site (LM-4). Upon further inspection of the pre-contact site LM-4, it was determined that this resource is an extension of 35UN67 and the temporary field name, LM-4, was subsequently dropped from use. Additionally, six newly recorded isolated finds (IFs) were also documented within USFS-owned property, including three historic IFs (IF-3, IF-5, and IF-6), two pre-contact IFs (IF-2 and IF-4), and one multi-component IF (IF-1).

Impacts to Significant Heritage Resources

The sites that have been identified within the APE that are preliminarily recommended as eligible historic properties include pre-contact lithic scatters, a possible logging camp or historic habitation area, the

Mount Emily Railroad Grade, and a firing range. The project activities would be able to avoid impacting all of these potentially eligible sites (project activities would occur outside of site boundaries). Information about these sites is located in the survey report, which is to be used by cultural resource specialists to evaluate these resources for eligibility.

Table 1. List of heritage resource finds within the Area of Potential Effects

Site/IF Number	Resource Description	Previously Recorded	Time Period	Land Owner	NRHP Eligibility
35UN67 (LM-4)	Artifact assemblage of points, choppers, lithic scatters and debitage. Glass fragments, wire nails and milled lumber.	Yes	Pre-contact Historic	USFS	Eligible
35UN70 (LM-6)	Lithic Scatter	No	Pre-contact	Private	Eligible
35UN286	Lithic Scatter	Yes	Pre-contact	USFS	Unevaluated
35UN287	Debris Scatter	Yes	Historic	USFS	Unevaluated
35UN299	Railroad Property – Railroad grade	Yes	Historic	Private & USFS	Eligible
35UN589	Homestead with Debris Scatter	Yes	Historic	USFS	Not eligible
35UN657	Lithic Scatter	Yes	Pre-contact	USFS	Eligible
35UN658	Artifact assemblage of lithic scatter, lumber, depression features	Yes	Pre-contact Historic	USFS	Eligible
3S-36E-14/03	Debris Scatter	Yes	Historic	USFS	Unevaluated
BT1-ISO-1	Isolated scraper, basalt debitage	Yes	Pre-contact	USFS	Not Eligible
LM-1	Debris Scatter	No	Historic	USFS	Unevaluated
LM-2	Artifact assemblage of basalt flakes, tool fragment, glass, cast-iron pan handle	No	Pre-contact Historic	USFS	Unevaluated
LM-3	Rock Wall	No	Historic	USFS	Unevaluated
LM-5	Lithic Scatter	No	Pre-contact	Private	Unevaluated
IF-1	Artifact assemblage of lithic debitage and tobacco tin lid	No	Pre-contact Historic	USFS	Not eligible
IF-2	Flake Shatter	No	Pre-contact	USFS	Not eligible
IF-3	Horseshoe	No	Historic	USFS	Not eligible
IF-4	Lithic debitage and bone fragment	No	Pre-contact	USFS	Not eligible
IF-5	Railroad spike	No	Historic	USFS	Not eligible
IF-6	Glass bottle	No	Historic	USFS	Not eligible
IF-7	Obsidian and basalt debitage	No	Pre-contact	Private	Not eligible

Direct and Indirect Effects on Heritage Resources

Alternative 1 – No Action Alternative

Under this alternative, no effects would occur and no treatment activities would be undertaken.

Alternative 2 – Proposed Action

Avoided Pre-contact and Historic Properties

Criteria built into the design of the action alternative (refer to Management Requirements, Constraints, Design Criteria, and Conservation or Mitigation Measures section of this EA) provides protection of all known pre-contact and historic properties eligible for listing on the National Register (per 36CFR800) within the project area through avoidance. Due to these avoidance measures requiring actions to occur outside of known site boundaries and sites would not experience direct impacts from project activities.

Indirect effects on the heritage resources located near the river may take place due to the natural migration of river channels that have changed as a result of the project design. However, these indirect effects would not diminish or remove the qualities of these resources that make them important.

Project design features also would require the protection of any cultural resources found during project implementation.

Cumulative Effects on Heritage Resources

Analysis of the present and reasonably foreseeable future activities within the project area were analyzed in Appendix D of the EA to determine which of those activities may overlap in time and space with this project and have the potential to result in a cumulative effect when added to the activities proposed in each of the alternatives.

Alternative 1 – No Action Alternative

Because there would be no activities occurring which could affect heritage resources under this alternative, there would be no potential for cumulative effects to them as a result of selection of the no action alternative.

Alternative 2 – Proposed Action

Cumulative impacts to the avoided heritage resources near the river would be limited to potential changes in human or animal access to the area once the project is completed. Analysis of the cumulative effects of this project's activities in combination with the present and reasonably foreseeable future activities on the railroad grade indicate that there would not likely be any measurable effects from the activities that overlap in time and space with the remnants of this site.

Forest Plan Compliance

Consideration of the direct, indirect, and cumulative effects on heritage resources results in the finding that Alternatives 1 and 2 would be consistent with the Wallowa-Whitman Land and Resource Management Plan as all cultural resource standards and guidelines for inventory, evaluation, nomination, protection, enhancement (interpretation), resolution of conflicts with other activities (MOA Mitigation Plan), coordination with SHPO and the tribes, and monitoring would be met (USDA Forest Plan 1990).

References

- Ames, K.M., D.E. Dumond, J.R. Galm, and R. Minor. 1998. Prehistory of the Southern Plateau. In *Plateau*, edited by D.E. Walker, Jr., pp. 103–119. Handbook of North American Indians, vol. 12, W.C. Sturtevant general editor. Smithsonian Institution, Washington, D.C.
- Barklow, I. 1987. *From Trails to Rails, the Post Offices, Stage Stops, and Wagon Roads of Union County, Oregon*. Enchantments Publishing of Oregon.
- Bureau of Reclamation. 2014. Upper Grande Ronde River Tributary Assessment, Grande Ronde River Basin. U.S. Department of the Interior, Bureau of Reclamation Pacific Northwest Region, Boise, Idaho.
- CTUIR 2017. Website: <http://ctuir.org/history-culture/history-ctuir>. Accessed August 9, 2017.
- Deumling, D. 1972. The Roles of the Railroad in the Development of the Grande Ronde Valley. Master's Thesis, Department of History. Northern Arizona University.
- Duncan, Angus, 1998 History, Science, the Law, and Watershed Recovery in the Grande Ronde: A Case Study. Oregon Sea Grant. Corvallis, Oregon.
- Edvalson Almquist, K., C. Morrison, K.W. Brookshire, and E.J. Carter. 1996. *Union Main Street Historic District*. Electronic form, <http://pdfhost.focus.nps.gov/docs/NRHP/Text/97000907.pdf>. Accessed December 16, 2013.
- Hayden, Brian and Rick Schulting. 1997. The Plateau Interaction Sphere and Late Prehistoric Cultural Complexity. *American Antiquity* 62(1):51-85.
- ICF. 2017. Draft Cultural Resources Survey Report for the Bird Track Springs Fish Habitat Restoration Project. Manuscript on file at the Snake River Area Office, Boise, Idaho.
- McPherson, P.J., D.M. Hall, V.J. McGlone and N.J. Nachtewy. 1981. Archaeological Excavation in the Blue Mountains: Mitigation of Sites 35UN52, 35UN74, and 35UN95 in the Vicinity of Ladd Canyon, Union County, Oregon. Volume 1. Western Cultural Resource Management, Inc., Boulder, CO.
- Mead, George R. and Shalem Ruth. n.d.. Preservation Plan: Mt. Emily Lumber Company Historic Sites. La Grande Ranger District, Wallowa-Whitman national Forest. Baker City, OR.
- National Forest Foundation. 2016. Wallowa-Whitman National Forest. Electronic document, <https://www.nationalforests.org/our-forests/find-a-forest/wallowa-whitman-national-forest>. Accessed August 9, 2016.
- Oregon Historical Society. 1960. History of Grand Ronde. Oregon Historical Society Research Library. Portland, Oregon.
- Oregon Parks and Recreation Department: Oregon Heritage: State Historic Preservation Office Website. Accessed at: http://www.oregon.gov/oprd/HCD/SHPO/Pages/preservation_106_examplemitigation.aspx on August 23, 2017.
- Powell, David C. 2008. The Camas Creek Timber Sale and the Milton Box Company: USDA Mount Emily Timber Sale. U.S. Forest Service. Pacific Northwest Research Station. La Grande, Oregon.

Skovlin, Jon M. 1991. Fifty Years of Research Progress: A Historical Document on the Starkey Experimental Forest and Range. United States Department of Agriculture, U.S. Forest Service. Pacific Northwest Research Station. La Grande, Oregon.

Ray, V.R., P. Murdock, B. Blyth, O.C. Stewart, J. Harris, E.A. Hoebel, and D.B. Shimkin. 1938. Tribal Distribution in Eastern Oregon and Adjacent Regions. *American Anthropologist* 40:3.

Spinden, H.J. 1908. The Nez Perce Indians. *Memoirs of the American Anthropological Association* 2(3):14.

Steinmetz, Shawn. 2003. Addendum to the Longley Meadows Conservation Reserve Enhancement Program Easement, Union County, Oregon. Report prepared for the Confederated Tribes of the Umatilla Indian Reservation. Pendleton, OR.

Stern, T. 1998. Cayuse, Umatilla and Walla Walla. In *The Handbook of North American Indians, Plateau*. Edited by D.E. Walker, Vol. 12, pp. 395–419, Smithsonian Institution, Washington, D.C.

Trainweb. 2016. Mount Emily Lumber Company: Grande Ronde Lumber Company. Online Document, <http://www.trainweb.org/highdesertrails/mel.html>. Accessed August 10, 2016.

Turner, John E. 2005. Mount Emily Lumber Company: A Way of Life. Grande Ronde Publishing Company. La Grande, Oregon.

USDA. 1990. Wallowa-Whitman Land and Resource Management Plan (Forest Plan). United States Forest Service, Pacific Northwest Region. Baker City, OR.

Watershed Professionals Network, LLC. 2004. Grande Ronde Sub-basin Plan Supplement, December 31, 2004. Prepared for Northwest Power and Conservation Council. Electronic document, available at <http://www.nwcouncil.org/fw/subbasinplanning/granderonde/plan/GRSPfinal.pdf>.

Womack, B.R., RPA. 1977. An Archaeological Investigation and Technological Analysis of the Stockhoff Basalt Quarry in Northeastern Oregon. Unpublished Master's Thesis, Washington State University, Pullman, WA.